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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,074	08/24/2001	A. David Erpelding	SJ0920010018US1	4237

7590 05/25/2005

IBM Corporation  
Intellectual Property Law  
5600 Cottle Road (L2PA/0142)  
San Jose, CA 95193

EXAMINER
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BLOUIN, MARK S

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/939,074

Applicant(s)

ERPELDING, A. DAVID

Examiner

Mark Blouin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**Detailed Action**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2,7, and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Larson et al (USPN 6,151,197).

3. Regarding Claims 1 and 7, Larson et al shows (Fig. 3-5) a disk drive (Figure 2) comprising at least one magnetic disk having a recording surface, a motor connected with the disk, a slider with a trailing surface, a magnetic recording head for recording digital data on the recording surface of the disk, the magnetic recording head formed on the trailing surface of the slider, a suspension connected with the slider, the suspension comprising a hinge portion (hinge forms at end of mount plate (306) and attaches to load beam at mount region (310)) a load beam portion (301) having a first and second outside edge, the hinge portion and load beam portion being formed separately and joined together, the load beam having a distribution of total mass balanced (inherent in symmetry of beam) about a torsional axis (longitudinal centerline of load beam), the torsional axis approximately passing through the pivot point (Col 6, lines 26-29), a rigid arm connected with the suspension and an actuator connected with the rigid arm.

4. Regarding Claims 2 and 8, Larson et al shows (Fig. 3) a suspension load beam wherein the load beam comprises one or more ribs formed along a portion of the load beam, the ribs

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(edges of load beam curved upwardly in Figure 3) formed such that the distribution of mass of the load beam result in the balance of the total mass about the torsional axis.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5,6,11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larson et al (USPN 5,786,961) in view of Blaeser et al (USPN 5,187,625).

7. Regarding Claims 5,6,11, and 12, Larson et al shows all the features described, *supra*, but does not show a suspension wherein the constrained layer damping material (13) comprises a sandwich of two metal layers and a viscoelastic damping material disposed between the two metal layers.

Blaeser et al shows a suspension wherein the constrained layer damping material (13) comprises a sandwich of two metal layers (12 and 14) and a viscoelastic (Col 2, line 51) damping material disposed between the two metal layers.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the load beam of Larson et al with the load beam having viscoelastic damping material disposed between the two metal layers of Blaeser et al. The rationale is as follows: One of ordinary skill in the art at the time the invention was made would have been motivated to replace the load beam of Larson et al with the load beam having viscoelastic

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material disposed between the two metal layers of Blaeser et al in order to reduce vibration, facilitating precise positioning of the magnetic head.

8. Claims 3,4,9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larson et al (USPN 5,786,961) in view of Manzke et al (USPN 4,739,430).

9. Regarding Claims 3,4,9, and 10, Larson et al shows all the features described, *supra*, but does not show the load beam formed of magnesium or a magnesium rich alloy.

Manzke et al shows (Column 3, lines 4-5) the load beam formed of magnesium or a magnesium rich alloy.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use light weight magnesium or a magnesium rich alloy as the metal material in the beam of Larson et al as materials taught by Manzke et al. The rationale is as follows: One of ordinary skill in the art at the time the invention was made would have been motivated to use light weight magnesium or a magnesium rich alloy as the metal material in the beam of Larson et al as materials taught by Manzke et al in order to reduce vibration.

#### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1-12 in the Appeal Brief have been considered but are moot in view of the new ground(s) of rejection.

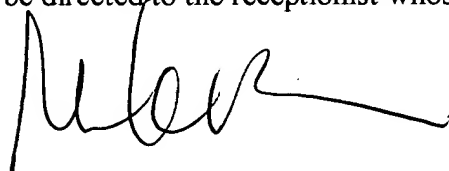
#### ***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Blouin whose telephone number is (703) 305-5629. The examiner can normally be reached M-F, 6:00 am – 3:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful the examiner's supervisor, William Korzuch can be reached at (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314 for regular and After Final communications.

Any inquiry of general nature or relating to the status of application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.



Mark Blouin  
Patent Examiner  
Art Unit 2653  
May 11, 2005



DAVID L. OMETZ  
PRIMARY EXAMINER